

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A process of producing a three-dimensionally shaped object comprising a layer forming step of forming a powder material having a refractive index n_1 into a layer having a prescribed thickness on a support, a cross-sectional shape forming step of binding the layer of the powder material formed in the foregoing step into a prescribed cross-sectional shape with a binding agent having a refractive index n_2 ; and repeating these steps successively, to produce said three-dimensionally shaped object, wherein n_1 and n_2 satisfy the relationship of $-0.1 \leq (n_1 - n_2) \leq 0.1$.

2. (original): A process of producing a three-dimensionally shaped object comprising:

(a) a layer forming step of forming a powder material having a refractive index n_1 into a layer having a prescribed thickness;

(b) a cross-sectional shape forming step of feeding an ultraviolet (UV) curable binder in a cross-sectional shape into the powder material layer formed in the foregoing step and irradiating UV rays to cure the binder, thereby forming a bound body of the powder material in the cross-sectional shape corresponding to a cut surface of a subject to be shaped cut at a certain one plane with a binding agent having a refractive index n_2 after the curing; and

(c) repeating these steps successively, thereby successively laminating and forming the bound body of the powder material corresponding to a cut surface of the subject to be shaped cut at a plurality of planes, wherein

(d) n_1 and n_2 satisfy the relationship of $-0.1 \leq (n_1 - n_2) \leq 0.1$.

3. (original): A process of producing a three-dimensionally shaped object comprising:

(a) a layer forming step of forming a powder material into a layer having a prescribed thickness;

(b) a cross-sectional shape forming step of feeding a UV curable binder in a cross-sectional shape into the powder material layer formed in the foregoing step, thereby forming a bound body of the powder material in the cross-sectional shape corresponding to a cut surface of a subject to be shaped with a binding agent formed by curing the binder upon irradiation with UV rays; and

(c) repeating these steps successively, thereby successively laminating and forming the bound body of the powder material corresponding to a cut surface of the subject to be shaped cut at a plurality of planes, wherein

(d) a volatile component of the UV curable binder after the curing with UV rays is not more than 5 % by weight.

4. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 1, wherein the powder material is a cured material of the UV curable binder to be used for binding.

5. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 1, wherein the powder material is magnesium hydroxide, silica gel, or aluminum hydroxide.

6. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein a volatile component of the UV curable binder after the curing with UV rays is not more than 5 % by weight.

7. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 5, wherein the magnesium hydroxide, silica gel or aluminum hydroxide has a mean particle size of from 0.1 to 1,000 μm .

8. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein the UV curable binder contains at least one kind of polyfunctional acrylate or methacrylate monomers.

9. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 8, wherein at least one kind of the polyfunctional acrylate or methacrylate monomers accounts for from 20 % by weight to 90 % by weight of the total UV curable binder.

10. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein the UV curable binder contains not more than 70 % by weight of an additive for viscosity modification.

11. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein the UV curable binder contains from 0.05 % by weight to 10 % by weight of a photopolymerization initiator having sensitivity to UV rays of from 450 to 250 nm.

12. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein the UV curable binder contains one or more colorants of yellow (Y), magenta (M), cyan (C) and white (W).

13. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 12, wherein the colorant contains at least one kind of dyes or pigments.

14. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein the UV curable binder has a viscosity of from 1 to 30 mPa.s.

15. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein a feed measure of the UV curable binder into the powder material is an inkjet mode.

16. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 1, wherein the powder material is a fine powder having a mean particle size of from 0.1 to 1,000 μm .

17. (original): The process of producing a three-dimensionally shaped object as claimed in Claim 1, wherein the powder material is a fine powder having a mean particle size of from 1 to 50 μm .

18. (new): The process of producing a three-dimensionally shaped object as claimed in Claim 2, wherein the UV curable binder is solvent free.

19. (new): The process of producing a three-dimensionally shaped object as claimed in Claim 3, wherein the UV curable binder is solvent free.

20. (new): The process of producing a three-dimensionally shaped object as claimed in Claim 4, wherein the UV curable binder is solvent free.